

REMARKS

Claims 4-6, 12, 14-19, 22-24, 30, and 32-37 are pending the present application.

In the office action mailed April 5, 2007 (the "Office Action"), the Examiner rejected claims 4-6, 12, 14-19, 22-24, 30, and 32-37 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,578,005 to Lesaint et al. (the "Lesaint patent") in view of U.S. Patent No. 5,615,121 to Babayev et al. (the "Babayev patent").

Applicants' remarks from the previously filed responses are maintained. The remarks in the present response identify further deficiencies in the Examiner's rejection of the claims.

Claims 4-6, 12, 14-19, 22-24, 30, and 32-37 are patentable over the Lesaint patent in view of the Babayev patent because the combined teachings of the two references fail to teach or suggest the combination of limitations recited by the respective claims. The Examiner has mischaracterized the teachings of the Lesaint patent in order to support the rejection of the claims under 35 U.S.C. 103(a).

The Examiner argues that (1) t(n,c) is "included" in determining the "cost" of the revised schedule; (2) t(b,c) is inherent in determining the cost of the best existing schedule; and (3) by comparing the costs of the revised schedule and the best existing schedule, a difference travel time is calculated. See the Office Action at page 8. The Examiner cites to the description at col. 22, lines 58-66 for support.

The Examiner's arguments mischaracterize the cited description. The discussion of "travel to and from" a task is directed to "determining *whether* the insertion may be made." See col. 22, lines 58-60 (emphasis added). The material cited by the Examiner does not teach inclusion of t(n,c) in the cost calculation for the revised schedule, but teaches considering travel time related to a task in deciding *whether* the task can be added to a schedule. As further described, "*If* insertion is possible, the task is inserted into the technician's schedule and the revised schedule costed. The cost of the revised schedule is then compared with the best existing value." See col. 22, lines 61-64 (emphasis added). The cited material does not teach the inherency of t(b,c) in calculating a cost for a schedule, but teaches that "cost" calculations occur *after* it is determined the task can be inserted. Contrary to the Examiner's argument, the cited material does not support the propositions articulated by the Examiner.

Moreover, taking the material at col. 22, lines 58-66, which as previously mentioned the Examiner has cited in support of his arguments, does not teach calculating a difference travel time (i.e.,  $d=t(n,c)-t(b,c)$ ) by comparing the revised schedule and the best existing schedule. The Examiner is incorrect in that the “best existing value” represents the schedule without the task inserted. The “best existing value” is the cost value for the revised schedule (i.e., the task has already been inserted) having the lowest cost at the moment. New cost values are calculated by shifting the tasks around in the schedule, and are then continually compared with the cost of the “best existing value” in order to determine if there are any better arrangement of tasks for the schedule. The comparison of costs described by the material cited by the Examiner is not comparison of the cost of the schedule without the new task with the cost of the schedule with the new task, but the comparison of schedules all having the new task. Consequently, the Examiner’s argument that comparing costs of the “revised schedule” and the “best existing value” teaches calculating a difference travel time mischaracterizes the teachings of the Lesaint patent because the Examiner’s assumption that  $t(b,c)$  is “inherently” included in the schedule with the “best existing value” is not correct. As previously discussed, the revised schedule and the schedule with the best existing value both include the inserted task, which according to the Examiner’s logic, would both include  $t(n,c)$ , but not  $t(b,c)$ . Consequently, calculating a different travel time is not described in the Lesaint patent.

The Lesaint patent further fails to disclose, with reference to claim 4, a computer-implemented method for finding an opening in which to fit an order in a schedule that includes creating a schedulable time block having a primary block, zero or more expansion blocks, and zero or more load blocks, where the expansion blocks have time from relocating assigned orders in the shift and the load blocks have time from removing assigned orders from the shift. With reference to claim 22, the Lesaint patent fails to disclose a computer-readable medium having instructions stored thereon for causing a computer to perform a method for finding an opening to fit an order in a schedule that includes creating a schedulable time block from a virtual free time block, wherein the schedulable time block includes a primary block, and can further include at least one of an expansion block and a load block. The expansion blocks have time from relocating assigned orders in the shift and the load blocks have time from removing assigned orders from the shift.

The Examiner cites col. 22, lines 51-55 and col. 23, lines 16-28 as teaching a schedulable time block that has a primary block and can have a expansion block and/or a load block. See the Office Action at page 3. The cited material at col. 22, lines 51-55, however, describes not scheduling a task to a position where the technician would arrive outside a time window defined by the appointment slot start time and the appointment end time. There is no discussion of expansion blocks having time from relocating assigned orders in the shift or load blocks having time from removing assigned orders from the shift. The material simply describes a condition under which a task will not be assigned to the schedule of a technician. The cited material at col. 23, lines 16-28 describes calculating cost values for schedules having different arrangement of tasks until a schedule having a “best value” is obtained. The description is not related to finding an opening to fit an order into the schedule, but assumes that a task has already been inserted. As previously discussed, the tasks (including the inserted task) are rearranged in the schedule to find a schedule having the “best [cost] value.” Expansion blocks having time from relocating assigned orders in the shift or load blocks having time from removing assigned orders from the shift are not described.

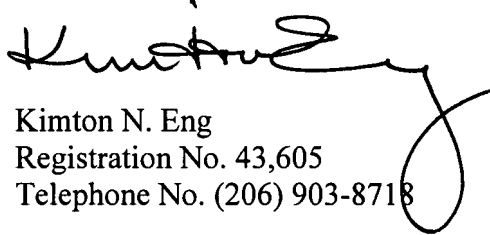
The Babayev patent, which has been cited by the Examiner as teaching providing an alternative appointment time close to a customer preferred time interval if the customer preferred time cannot be accommodated. See the Office Action at page 4. Even if we consider the Examiner’s characterization of the Babayev patent to be accurate for the sake of argument, the Babayev still fails to make up for the deficiencies of the Lesaint patent previously discussed.

For the foregoing reasons, claims 4 and 22 are patentable over the Lesaint patent in view of the Babayev patent. Claims 5, 6, 12, and 14-19, which depend from claim 4, and claims 23, 24, 30, and 32-37, which depend from claim 22, are similarly patentable based on their dependency from a respective allowable base claim. Therefore, the rejection of claims 4-6, 12, 14-19, 22-24, 30, and 32-37 under 35 U.S.C. 103(a) should be withdrawn.

All of the claims pending in the present application are in condition for allowance.  
Favorable consideration and a timely Notice of Allowance are earnestly solicited.

Respectfully submitted,

DORSEY & WHITNEY LLP



Kimton N. Eng  
Registration No. 43,605  
Telephone No. (206) 903-8718

KNE:alb

Enclosures:

Postcard  
Check  
Fee Transmittal Sheet (+ copy)  
Request for Continued Examination (+ copy)

DORSEY & WHITNEY LLP  
1420 Fifth Avenue, Suite 3400  
Seattle, WA 98101-4010  
(206) 903-8800 (telephone)  
(206) 903-8820 (fax)

h:\ip\clients\mdsi\500744.01\500744.01 amendment after final rejection 2.doc